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RURAL DISTRICT OF NORTH WESTMORLAND

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1950

LIVERPOOL
C. TINLING AND COMPANY, LIMITED, PRINTERS, 53, VICTORIA STREET

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To the Chairman and Members of the Rural District Council of North Westmorland

Sir and Gentlemen,

I have the honour to submit to you my Annual Report upon the health of the Rural District during the year 1950.

The gradual post-war resumption of progress in public health practice has been complicated by the initial difficulties of the first year's operation of the National Health Service Act, 1946, the Town and Country Planning Act, 1947, and the National Assistance Act, 1948.

This legislative upheaval has split medicine into three poorly co-ordinated divisions—the hospitals, general practice and public health service. The emphasis now lies upon the curative services of the regionally controlled hospitals. The enormous cost of treatment will soon focus more attention upon the preventive services, for the adage that prevention is better than cure was never more appropriate than in this year of Grace.

I believe that these statutes offer great opportunities for advancement in the primary functions of hygiene and preventive medicine if the public health service of the local authorities can take its logical place in a more united trinity of medicine. It has a proud record in the past and still great faith in the future.

I wish to acknowledge the help and ready co-operation of my colleague, the County Medical Officer of Health, and also the assistance afforded to me by the local general medical practitioners.

I am indebted also to the Chief Sanitary Inspector and his staff for the spirit of team work which exists in my department, and for the fund of local knowledge which they have laid at my disposal.

I have the honour to be,
Sir and Gentlemen,
Your obedient servant,
FRANK T. MADGE,
Medical Officer of Health.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

Area of the Rural District (in acres)	288,688
Population (mid year)	17,050
Inhabited houses	5,069
Rateable Value	£66,731

The Rural District of North Westmorland lies between the central mountainous mass of the Lake District and the escarpment of the Pennine Chain, and possesses a wide variety of scenery. The main geographical feature of the District is the Eden Valley, a fertile agricultural strip which was once the route of a Roman highway, and later a strong line of defence against the Border raiders. The River Eden rises in lonely Mallerstang, flows past the market town of Kirkby Stephen to the foothills of the Pennine Range, and thence north-westwards through the ancient Borough of Appleby to its junction with the River Eamont, where it leaves the District.

The country to the north-east rises abruptly to some 2,500 feet, and on the far side the northernmost boundary lies in the desolate area of the Upper Tees Valley. To the south-west of the Eden Valley lies the central upland plateau which extends from Shap to Kirkby Stephen, broken only by a few charming wooded valleys and occasional villages. South of this plateau the River Lune flows through pleasant pastoral Ravenstonedale into the austere gorge below Tebay, and the southern boundary of the District is the 2,000 feet high rampart of the great watershed of Westmorland. In the south-west the great barren fells of the Lake District rise to over 3,000 feet above sea-level, and in their valleys lie the beautiful lakes of Ullswater and Haweswater. These geographical features determine the natural lines of communication and therefore influence the spread of infectious diseases.

The geology of North Westmorland is also very varied. The escarpment of the Pennine Chain on the north and the central upland mass are formed of lower carboniferous limestone, and the Eden Valley lies between along the lines of the Pennine Fault. The Cross Fell inlier in the Dufton and Hilton areas is a unique formation containing in miniature most of the Lake District rocks, Skiddaw slates, Borrowdale volcanic rocks, Coniston limestone, the Ashgillian series, and Silurian strata above which follows the dominating carboniferous series of the escarpment.

The Vale of Eden is composed mainly of permian sandstones, with St. Bees sandstone in the south, with small beds of red shales, gypsum and magnesium limestone. Above and below the Penrith sandstone lie Brockrams and Breccias, and further west some red conglomerate basement beds are found in the Pooley Bridge area. To the south-west the

Borrowdale Volcanic series occur, with ashes and breccias often well bedded and cleaved, and the Silurian strata commence south of Shap. A further interesting feature is the outcrop of the Shap granite intrusion through the Borrowdale series near their junction with the thin Coniston limestone beds. Glacial drift remains at several places and the valley bottoms contain alluvial deposits. These geological characteristics are of great significance in the supervision of water supplies, sewerage, and occupational diseases as well as affecting the economics of the District.

The climate is equable in the valleys and invigorating on the fellsides and uplands. The air is generally very clear and there is little mist or fog. Temperature gradient inversions are occasional in the mornings. The average rainfall is 73 inches a year in the Haweswater area, and snow may be expected for one or two weeks in the late winter.

The District is primarily agricultural in character and many of the small local industries are ancillary to agriculture. There are also the following industries which provide much local employment and bring a measure of prosperity to the village :—

Stone Quarries.	Cement Manufactory.
Gypsum Mines.	Plasterworks.
Barytes Mines.	

In addition to these local industries the District receives seasonal tourist business along the main highways and in the Lake District areas. The variety of these opportunities for local employment has helped to stop the drift from the countryside and has kept North Westmorland happily free from unemployment. and has provided the economic security and local prosperity which is a most important factor in the maintenance of the public health.

The rateable value of the Rural District is £66,731 and the product of a Penny Rate is £265. The rate for 1950/51 is 17/8d. in the Pound, of which 16/4d. represents the County Rate.

STAFF.

Name	Qualifications	Office	Whole or Part Time	Other Offices
Madge, F. T.	M.D., Ch.B., M.R.C.S., L.R.C.P., D.P.H.	Medical Officer of Health	Part	M.O.H. Combined County Districts of Westmorland
Calvert, D.	M.R.S.I., M.S.I.A.	Chief Sanitary Inspector	Part	Engineer and Surveyor
Hart, G.	M.R.S.I., M.S.I.A.	Additional Sanitary Inspector	Part	Surveyor
Shepherd, I.	A.R.San.I., M.S.I.A.	Additional Sanitary Inspector	Whole	—
Craddock, N.	—	Clerk	Whole	—
Bousfield, J.	—	Typist	Whole	
Newton, D.	—	Clerk	Whole	
Machell, B. M.	—	Clerk to Medical Officer of Health	Part	Clerk to Medical Officer of Health Combined County Districts of Westmorland

STAFF CHANGES.

There were none during 1950.

VITAL STATISTICS.

The following extracts are made from information supplied by the Registrar-General with figures for 1949 for comparison :—

Area of the District in acres 288,688

		1949	1950
Estimated civilian population (mid year) ...		16,940	17,050
Live Births.	Legitimate— males	149	145
	females	136	110
	Illegitimate— males	8	10
	females	11	2
	Total	304	267
	Rate per 1,000 population ...	17.9	15.6
	Rate for England and Wales ...	16.7	15.8
Still Births.	Legitimate— males	5	5
	females	4	3
	Illegitimate— males	—	—
	females	1	—
	Total	10	8
	Rate per 1,000 total (live and still) births	31.8	29.1
	Rate per 1,000 population ...	0.59	0.46
	Rate for England and Wales ...	0.39	0.37
Deaths.	Males	120	94
	Females	119	117
	Total	239	211
	Rate per 1,000 population	14.1	12.4
	Rate for England and Wales	11.7	11.6
Infantile Deaths (under 1 year)			
	Legitimate	6	7
	Rate per 1,000 legitimate live births...	21.05	27.4
	Illegitimate	1	2
	Rate per 1,000 illegitimate live births	52.6	166
	Total Deaths under 1 year	7	9
	Rate per 1,000 live births	23.02	33.7
	Rate, for England and Wales	32	29.8

	1949	1950
Neonatal Deaths (under 1 month).		
Total Neonatal Deaths...	5	4
Rate per 1,000 live births	16.4	14.9
Deaths from Diarrhœa and Enteritis. (Under 2 years)		
Deaths	—	2
Rate per 1,000 live births	—	7·5
Rate for England and Wales	3.0	1.9
Maternal Mortality.		
Total Deaths	—	—
Rate per 1,000 total (live and still) births	—	—
Rate for England and Wales	0.98	0.86

Deaths from certain causes :—

	1949	1950
Cancer	36	25
Measles	Nil	Nil
Whooping Cough	Nil	Nil

The main causes of death were :—

Heart Disease	...79
Vascular lesions of nervous system	...30
Cancer	...25

COMMENTARY ON THE VITAL STATISTICS FOR 1950.

The Registrar-General's estimate of your civilian mid-year resident population was 17,050, which is 110 more than last year. The number of births exceeded the number of deaths by 56, and there was an immigration of 54 persons.

A proper perspective cannot be obtained by considering merely one year's changes. It is the general trend of population which is important for the planning of your future housing, water and sewerage requirements, and for the broader issues of the economic prosperity of your District.

Before the second world war you were a declining community in spite of your births exceeding your deaths. There was a steady drift each year out of the countryside which defeated the effects of your natural increase. From 1940 to 1942 there was a small artificial increase due to war evacuees from the vulnerable areas, but these people have now nearly all gone back.

I believe that the setting up of a better basis for agriculture in the national economy will check that drift from the countryside, and will encourage your young folk to renew their faith in country life by settling down in their native parts.

Birth Rate.

Your birth rate has generally been above the average for England and Wales, and is still well above your death rate. The position would be better but for the effect of the two wars. The present child-bearing and begetting population suffered twice. There is a sad gap in their ranks due to the unborn casualties of the first world war, and at the onset of the second war their marriages were delayed, prevented or frustrated at the time of their maximum fertility. The rate for 1950 was 15·6.

Stillbirth Rate.

Your stillbirth rate was satisfactory.

Death Rate.

Your death rate was above that for England and Wales, but I attach no significance to that fact.

Infantile and Neonatal Deaths.

This year's rate was 23.7. Infantile deaths are deaths in children under the age of one year, and included in this figure are the neonatal deaths which are deaths in children under one month of age. This distinction helps to separate the deaths which are due to factors connected with pregnancy, child-birth and abnormal development, which are more likely to cause death within the first month, from the factors connected with infant management which are more likely to cause death between one month and one year.

There were 9 infant deaths in 1950 and of these 4 were neonatal deaths. Your infantile death rate has been about the average for England and Wales during the past ten years. Your figures are too scanty to carry any great statistical significance, but I feel that they reflect a very satisfactory improvement in child-care by the local doctors, nurses, and above all, by the young mothers in their homes. I hope that this happy state will continue.

The neonatal deaths contain what we might call the hard core of "unavoidable" infant deaths. Many of these in the past have been due to prematurity, abnormality, or the result of difficult child-birth. It does not appear likely that science will be able to prevent developmental abnormalities, but there are high hopes that blood tests and the increased availability of obstetrical specialists will help to reduce the number of neonatal deaths.

Maternal Deaths.

There were happily no maternal deaths during the year.

PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES.

Public Health Act, 1936, *Sections* 143-170.
National Health Service Act, 1946, *Part III.*

The first half of 1950 was almost free from infectious disease, but in July there was a sharp outbreak of measles which was confined to the village of Tebay and probably originated in the adjoining area of South Westmorland.

Measles again became evident towards the end of the year in the villages outside Penrith, and these cases were the forerunners of a major epidemic which spread to Appleby and most of the Eden Valley during the early months of 1951.

Brough suffered a small outbreak of whooping cough during the autumn, and the areas outside Penrith had scarlet fever on and off since midsummer.

Shap and Kirkby Stephen remained remarkably free from infection during 1950.

The areas around Penrith developed an undue incidence of Sonné dysentery during the autumn and early winter. Askham, Yanwath and the neighbouring hamlets were principally affected, but I know that several villages over the Cumberland border were also involved, and at the year end I was co-operating with the Medical Officer of Health of that area to ascertain the mode of spread of the disease.

The eight cases of amoebic dysentery were notified as a result of routine

medical examination of Polish immigrants from overseas tropical countries to the Camp at Lowther. All received special treatment.

The general control of these infections is improving with increased knowledge of their causes and better weapons of defence in their treatment.

Whooping Cough.

Whooping cough is slowly being brought under control. Artificial immunisation against the disease is now available and the treatment of established cases seems to be improved by the new synthetic antibiotic drugs. There seems every hope that this very distressing illness in little children can be virtually wiped out.

Measles.

Measles remains a disease which visits the area with periodical regularity. No effective artificial immunisation is yet available, but the use of antibiotic drugs has greatly reduced the incidence of pneumonia and ear disease complications in measles.

Scarlet Fever.

Scarlet fever has been insignificant for many years, and the illness is now normally nursed at home. Research has shown that scarlet fever is merely one manifestation among many of infection with the haemolytic streptococcus organism. Its virulence has diminished during this century and treatment is more effective in preventing complications. Scarlet fever is repressed rather than conquered.

Diphtheria.

Diphtheria has not occurred since 1947. Artificial immunisation appears to have almost abolished diphtheria, and I hope that serious epidemics of this deadly disease have been banished for all time.

I wish to thank the local doctors and nurses for their efforts to secure artificial immunisation of every baby before the first birthday and the school medical officers for their part.

Dysentery.

Notifications of the Sonné type of dysentery have increased in recent years. This is probably because extended laboratory services have facilitated more accurate diagnosis of the group of diseases which are characterised by diarrhoea. Sonné dysentery has been widespread throughout the north-west of England, and its control lies mainly in securing clean food handling and the maintenance of higher standards of sanitation.

NOTIFIABLE DISEASES TABLE.

Disease.	Total	Ages.												Admitted to Hospital	Deaths
		–1	1–	2–	3–	4–	5–	10–	15–	20–	35–	45–	65–		
Scarlet Fever	13	—	1	1	1	3	2	2	—	1	1	1	—	8	—
Pneumonia	21	—	—	—	1	2	2	1	2	2	6	3	2	—	1
Erysipelas...	2	—	—	—	—	—	—	—	—	—	—	1	1	—	—
Acute Polyomelitis ...	1	—	—	—	—	—	—	1	—	—	—	—	—	1	—
Cerebro-spinal Meningitis	1	—	1	—	—	—	—	—	—	—	—	—	—	1	—
Sonne Dysentery ...	12	—	2	—	4	2	1	—	—	3	—	—	—	—	—
Amoebic Dysentery ...	8	—	—	—	—	—	—	—	2	4	—	2	—	—	—
Measles	95	2	7	5	9	10	51	6	3	2	—	—	—	—	—
Whooping Cough ...	43	2	6	4	5	7	16	1	—	—	1	1	—	—	—
Total	196	4	17	10	20	24	72	11	7	12	8	8	3	10	1

Smallpox.

Smallpox remains an increasing threat due to the combined effect of apathy towards vaccination and enthusiasm for airborne travel. I think that people do not realise that we are less than 24 hours away from areas of constant ravage by this dreadful disease.

Smallpox swept the country from time to time until some 50 years ago when widespread vaccination checked its progress and vigilance at the seaports prevented its importation. A generation has grown up which is blinded by the complacency of false security, not yet realising that air travel has made smallpox once more a very real risk to the community.

Persons from abroad, who may be incubating the disease, arrive in this country well within the incubation period. It is most important that all children should be vaccinated in infancy, and that adults should keep themselves protected, rather than rush in belated panic for mass vaccination when an outbreak occurs.

The present low vaccination state of the population is inviting trouble from this disfiguring and often fatal disease. I cannot stress too strongly the wisdom of taking obvious precautions against preventable diseases.

Hospital and Ambulance Arrangements for Infectious Diseases.

National Health Service Act, 1946. *Parts II and III.*

Hospital accommodation for infectious diseases is provided by the Regional Hospital Board, Newcastle, at Ormside, Penrith and Carlisle.

Smallpox cases will be admitted to the Town Moor Hospital, Newcastle.

Ambulance transport for cases of infectious disease is provided by the Westmorland County Council.

Disinfection Arrangements.

On account of the geographical difficulties it is not usually practicable to effect steam disinfection, and reliance has to be placed upon formaldehyde treatment in the house of the patient.

TUBERCULOSIS.

Tuberculosis is the most important communicable disease of our time. It is sadly expensive in human lives, in crippling, and in money. It attacks mainly the teen-ager and the young adult, but its tragic progress lingers often into old age, spreading ripples of infection in its path. It is a blatant challenge to preventive medicine.

The prevention of tuberculosis is primarily dependent upon social and economic factors in the general community, and secondarily upon the management of the established case. Your Council's functions are threefold : to investigate the source of infection, to prevent the spread of infection, and to remove conditions favourable to infection.

Investigation of the source of infection relies upon notification. Since the Regional Hospital Boards reorganised the arrangements for treating tuberculosis notification has deteriorated seriously and our statutory registers are becoming progressively inaccurate. It is to be hoped that some liaison machinery will be evolved to restore the co-ordination between treatment and prevention which existed before July, 1948.

When notifications are received, inquiries are made into the home and working conditions of the patient and into any outside possible sources of infection. In this way occasional infectious respiratory cases can be discovered, and in certain cases of non-respiratory involvement infected milk can be traced back to tuberculous cows. A more detailed medical examination of members of the patient's family is undertaken by the Regional Hospital Board.

Additional assistance in investigating the source of infection will be provided by the Mass Miniature Radiography Units of the Regional Hospital Boards, which offer free x-ray examination in each locality from time to time. It is hoped that the public response will be good and that not only will it reveal the infectious cases but will enable early cases to be offered the best possible chances of recovery.

Preventing the spread of infection depends mainly upon the management of the established case. Ideally, the infectious patient should be isolated, but the serious shortage of beds and nurses in sanatoria causes many cases to remain outside. This is usually to the detriment of the patient and it creates a very serious reservoir of infection leaking into the general population.

If isolation in hospital is denied, reliance has to be placed on education of the patient in personal precautions, and your Council endeavour to ensure that the home conditions are such that an infectious patient is not compelled to share a bedroom with other members of the family who are still healthy, and where possible to rehouse young families who are sharing a house with infectious tuberculous patients—rather an inadequate and pathetic makeshift.

Prevention of tuberculosis extends beyond the home. Your Council have the duty of ensuring that an infectious patient is not employed in dairying or food handling, and persuasion is occasionally needed to avoid the undesirability of such a patient carrying on certain other employment which would create an especial risk to susceptible contacts. In many other workplaces control is impotent and spread may be unchecked. Perhaps immunisation with B.C.G. vaccine may protect susceptibles.

Removing conditions favourable to infection embraces the whole range of environmental preventive medicine. Housing and nutrition

are probably the major factors. Slum clearance, reconditioning of houses, relief of overcrowding are the first steps, for tuberculosis thrives in damp, dark, congested dwellings, whether they be sited in an urban slum or rural solitude. Nutrition is undoubtedly significant in the prevention of infection and in the early arrest of tuberculosis. Protective foods are expensive to buy, medical treatment is free.

The increase in attested herds, the eradication of tuberculous cattle, and systematic meat inspection are making notable progress in removing conditions favourable for bovine infection to be transmitted to man.

The supervision of dusty trades under the Factories Acts reduces the risk of lung damage which may predispose to tuberculous infection, and the workers in these occupations are especially surveyed by the X-Ray Units.

Your Council have therefore very considerable responsibilties in accepting the challenge of tuberculosis, but their powers would be considerably enhanced by better co-ordination with the various other bodies who are allies in this cause.

TUBERCULOSIS TABLE.

Age Periods	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M.	F.	M.	F.	M.	F.	M.	F.
0	—	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—	—
5	—	—	1	1	—	—	1	—
15	2	—	1	—	—	—	—	—
25	1	3	—	2	1	1	—	—
35	—	2	—	—	—	—	—	—
45	1	—	—	—	—	—	—	—
55	1	—	—	1	—	—	—	—
65	—	—	—	—	1	—	—	—
Total	5	5	2	4	2	1	1	—

Of the cases notified, two pulmonary were transfers from other areas, five pulmonary and two non-pulmonary were notified from the Polish Hostel at Lowther Park, and one non-pulmonary died during the year.

HOUSING.

The Housing Acts, 1936 *and* 1949.

Under the Housing Acts your Council has a duty to consider the general housing conditions in your district, to ascertain whether any are unfit for human habitation, and to assess the need for further houses. You have powers to deal with unfit houses, powers to provide new houses for all classes, and various powers and duties in the management of your Council's housing estates. Good housing conditions are an integral part of public health.

Present Housing Position.

Housing Act, 1936, *Section* 57.

There were 5,069 inhabited houses on your Rate Book at the end of the year. With an estimated population of 17,050 the average number of persons per house is 3.4, which is not a high figure. It is estimated that approximately 14 houses are legally overcrowded within the strict definition of the Housing Act which assumes that living rooms are used also for sleeping purposes, and that the sexes can be segregated irrespective of age, health or family relationships. Assessment of overcrowding based on a minimum bedroom standard is long overdue and would provide a more realistic picture of the domestic difficulties which are reflected in the application lists for new houses. Twenty-one cases of overcrowding have been relieved during the year.

The great majority of cottage houses and farmhouses are of considerable age and are stone built. Many of these old houses suffer from rising dampness due to the absence of damp-proof courses which cannot be remedied without extensive works in under-pinning. The sound methods of the original construction have ensured that deterioration of the structure is a very slow process, but heavy repair costs and low rentals have made housing repairs unprofitable.

The pressing demand upon local building labour for the erection of new Council houses and new agricultural buildings is one of the chief causes for slow progress in the repair and improvement of existing dwellinghouses, many of which have been badly neglected for the past 10 or 12 years.

The worst cases are being dealt with first and where informal action has failed to produce the desired result this has been followed up by Statutory action usually under the Public Health Act.

Fifty-six dwellinghouses have been renovated or improved during the year by the installation of baths and modern sanitation and improved cooking facilities, etc., including the conversion of 61 privies or earth closets into water closets.

Housing Act Action.

A modest start was made with slum clearance and was limited to dealing with any class 5 houses becoming vacant. Eleven of these were considered and every endeavour was made to persuade owners to recondition them if there seemed any possibility of retaining them as dwellings.

Closing Orders.

Housing Act, 1936. *Section* 12.

No closing orders were made during the year and none were outstanding at the year end.

Undertakings not to use for human habitation.

Housing Act, 1936. *Section* 11.

Twelve formal undertakings were in force at the year end, including six accepted in 1950. There were eight informal undertakings.

Undertakings to perform works.

Housing Act, 1936. *Section* 11.

No such undertakings were offered.

Demolition Orders.

Housing Act, 1936. *Section* 11.

One demolition order was made on a bungalow at Bampton.

One 1949 demolition order remains unsatisfied although the house in Pump Square, Brough, is vacated.

There are no outstanding clearance areas although many blocks of property are over-ripe for such action.

Condemned Houses occupied by Licence or Requisition.

Defence Regulation 68*a and* 51.

No houses are now so occupied.

Fit Houses Requisitioned.

Defence Regulation 51.

Three houses are still held under requisition orders.

Estimated Requirements for New Houses.

Housing Act, 1936. *Section* 71.

It is difficult to estimate the new housing need until the 1951 census figures are available or application lists are compiled, but 640 is considered to be a likely figure. This is made up thus :—

Replacement of slum houses	300
Provision of house per family unit	200
Agricultural and industrial expansion	140
	640

The agricultural demand was advanced by the Westmorland Agricultural Executive Committee and I consider that it represents a minimum requirement. The difficulties of labour in the farmhouses are hardening farmers' wives against workers living in, and the shortage of cottages discourages married men. The position is, however, still complicated and embarrassed by the Government's policy against tied cottages, which leads in the letting of Council houses to a vicious circle between tenant, farmers, and your Council. The policy of siting farmworkers' houses in existing villages may be satisfactory in arable farming areas, but it leads to working difficulties on stock-rearing farms where it is desirable for the men to be near their work.

Your Council's Housing Schemes and Progress.

The position at the end of the year relating to houses constructed or in course of construction and sites developed or in course of development since the end of the 1939-45 war was :—

Completed	81
Under construction ...	30

During 1950, 32 out of the above 81 were completed.

Houses Built by Private Enterprise.

Since the war 23 houses have been completed, nine of which were completed during 1950 and two were under construction at the end of the year.

Seven buildings not previously used for human habitation were converted into dwelling houses and three more were under conversion at the end of the year.

Tenants Selection.

When Council houses become available, handbills are posted on village notice boards, inviting applicants and stating whether the house is reserved for agricultural workers. All applicants are supplied with a form for submitting details of their personal circumstances, domestic

and financial, to your Council. The applications are considered by your Housing Committee together with any other information which can be supplied by the members of your Council for that area. There is no anonymity and your Housing Committee attach importance to the personal knowledge of your Councillors in making their selection. This system has its advantages as well as its disadvantages.

No application list of persons desiring housing is maintained by your Council. The maintenance of a live register reviewed annually would be valuable in assessing the demand in each parish, and in recording the length of time which each applicant has been waiting. In view of your large demand for houses and your present rate of progress it would enable you to keep the public informed of the position from time to time.

The absence of such customary records prevented your Council supplying the Minister of Health under Circular 171/48, with the details of the number of persons now desiring rehousing because they have no separate home or because they desire to improve their accommodation. I must record that this policy hampers the work of my department.

Housing Management.

Your Council now own 236 occupied houses, situated in widely dispersed sites in your extensive District. The housing management is largely in the hands of the Sanitary Inspectorate, and every effort is made to inspect the houses at regular intervals to see that the property is kept in good condition.

Considerable difficulty has been experienced in recent years in securing the services of contractors to carry out the necessary maintenance work. Your Council approved the setting up of a direct labour staff to deal with this responsibility which will in the future steadily increase as your housing estates grow.

Part of the maintenance and repair work to property in the Eastern area is carried out by the Council's own two workmen and partly by Contractors. In the Western area the whole of this work is done by Contractors.

The increasing cost of maintenance and repair work is becoming a serious drain on the housing repair account, especially as many of the houses are now reaching the age when an increased amount of repair work is necessary. The question of increasing the present contribution to the Housing Repair Account will soon require consideration.

The rents of your Council houses vary from 3/– to 13/–, exclusive of rates, and the rateable values are between £7 and £18. The examination of rentals and rates may not seem at first sight to have much to do with

public health, but it does have considerable significance. It is not unknown for persons who have been rehoused from poor quarters into modern Council houses to have to pay their rent and rates from that portion of their income which rightly belongs to the purchase of food. Domestic economy can affect the general standard of the public health almost as much as environmental conditions, and some attempt must be made to maintain a balance between these conflicting factors.

Verminous Houses.

Public Health Act, 1936. *Sections* 83-85.

No cases were reported during the year.

Nuisances and Notices re Dwellings.

Public Health Act, 1936. *Sections* 91-100.

During 1950 there were 86 Informal Notices served under the Act, and of these 71 were satisfied at the end of the year.

Six Statutory Notices were served and all were complied with during the year.

Dangerous Buildings.

Public Health Act, 1936. *Section* 58.

Two buildings were considered to be dangerous. One was demolished and the other was protected.

Tents, Vans, Sheds and Movable Dwellings.

Public Health Act, 1936. *Sections* 268-269.

There are four licensed camping sites in the Rural District at Howtown, Barton, Clifton and Eamont Bridge. Twelve individual camping licences were in force during the year.

Unlicensed camping sites are limited to occasional use and are mainly on the Ullswater Shore or along the banks of the River Eden during the fishing season. These casual campers cause little nuisance by their improvised sanitary arrangements and refuse disposal but they take water from polluted becks at their own risk.

A more serious nuisance occurs during the June Fair near Appleby and the Brough Fair later in the year. Both these Fairs are held under ancient charters and were once two of the most important horse fairs in England. Horse-drawn caravans, motor trailers, and tents assemble in hundreds along the roadside, and the occupants use the fields and hedgerows for all sanitary purposes, leaving after their departure a foul and polluted area.

Steps are being taken in Appleby Borough to concentrate the June Fair on to Gallows Hill and to install a proper water supply and chemical closets. This action should be advantageous to your Rural District as

much of the nuisance occurs therein. I recommend that your Council should consider similar action for the Brough Fair. The ancient charter privileges could be preserved without the unjustifiable and indiscriminate pollution of the District which at present constitutes a danger to the health of both the gypsies and the residents.

WATER SUPPLIES.

The water supply to your District is derived from many sources. The principal source of public supply is that from your regional scheme at Blea Water, the mains from which extend into 25 of your 52 parishes.

Your Council control and maintain 18 other sources of supply in whole or part of 31 parishes. A considerable portion of your District is dependent upon individual private supplies from wells, springs, stored rain water or watercourses. Martindale and Mallerstang have no public water supply. Many houses in Hartley, Ravenstonedale, and Stainmore, are supplied from the private system installed in these three areas.

The quality of the public supplies is indifferent, as will be seen from the results of laboratory examinations and chemical analyses carried out, which are set out in Appendix "A." I am undertaking a personal investigation of all these sources of public supply, and any others I discover. I have no official knowledge of the quality of the myriad of private supplies, but I suspect that many of them are unsatisfactory in quality and very variable in quantity. I can do no more than warn the users that they drink it at their own risk, that they should have it tested for purity at regular intervals, and if in doubt they should boil it.

The following is a brief review of the various sources of your Council's public water supplies.

Regional Scheme.

The source of supply is from Blea Water, which is a small tarn at 1,584 feet O.D. lying in the fells to the west of Haweswater in the catchment area owned by Manchester Corporation. The water is supplied by the owners in bulk to a small reservoir at Harper Hill, whence it falls to your Council's filter house a short distance below in Swindale.

At the filter house alumina and chalk are added to the raw water before it is filtered through Bell's pressure filters. Lime is further added to raise the *p*H, and the water is chlorinated occasionally.

The distribution mains then extend into 25 parishes with associated service reservoirs and balancing tanks. Since the time the regional scheme was installed there has been a constant increase in the number of consumers connecting to the system, and in the volume of milk production in the area. This heavily increased trade demand not only exceeds the

domestic consumption, but causes difficulties in being concentrated at the two peak periods of milk cooling for a couple of hours each morning and evening.

Owing to the limitation of the borrowing powers in force at the time of the inception of the scheme, the mains and service reservoirs were reduced in size to the extent that now your District feels the effect of false economy. To relieve shortage in the high lying villages, improvements to the scheme, by the construction of new covered reservoirs at various points, have been made in recent years, and Bolton will be the next area for such action. The quality generally is fairly good.

Barton Supply.

This source of supply is from springs on Barton Fell which are screened before the water enters the storage reservoir. The parishes supplied are Barton, Sockbridge, Tirril, Yanwath, and Eamont Bridge. The quality is fair. An auxiliary supply from another spring was installed during 1949 to overcome shortage in the Cellaron area during the severe drought.

Orton Supply.

Supply is upland surface water from Churn Ghyll on Langdale Fell. The water is screened and distributed in the Parish of Orton, with the hamlets of Kelleth, Raisbeck and Greenholme. There is ample water at the headworks, but the number of consumers served from the three-inch main before it reaches the balancing reservoir east of Orton village causes very little margin to be left for extra demands or leakages, and the higher points on the system quickly suffer from shortage. The quality is fair.

Tebay Supply.

The source is the same as that for Orton, and the parish of Tebay with Langdale and Gaisgill are supplied with the water after screening. The quality is fair.

Shap Supply.

Supply is obtained from upland surface sources at Force Beck. The water is passed through a gravitating slow filter of very doubtful efficiency, and the bacteriological results are very poor on account of animal manurial contamination upstream. During 1949 a portion of the stream was fenced off to minimise pollution by stock and poultry, and the gravel filter was renewed. I do not anticipate that this source could ever be made satisfactory at reasonable cost and Shap needs the Regional Supply.

Wickersgill Supply.

This is a small scheme supplying the houses near the Shap Granite Works. This source is upland surface water from a moorland beck. There is a small reservoir and a sand filter. The bacteriological results are indifferent.

Kirkby Stephen Supply.

The source is from springs at Cold Keld in Kaber parish. There are settling tanks and screens and the water is chlorinated before distribution at Kirkby Stephen, Winton and part of Hartley. The water is subject to periodical discolouration after wet weather. The quality of the treated water is satisfactory, but filtration is much needed.

Kaber Supply.

This supply comes from a spring on the fells near Rookby in the parish of Kaber. There are settling tanks and screens. The quality of the water is variable.

Brough Supply.

The source of this supply is from springs at Thornthwaite in Hillbeck parish, and the distribution is to Hillbeck, Brough, Brough Sowerby and part of Stainmore. There are settling tanks and screens. The quality is liable to be poor bacteriologically.

Warcop Supply.

A spring near Habergill furnishes the supply to the parish of Warcop except the Bleatarn area. There are settling tanks and screens. The quality of the supply is fair.

Bleatarn Supply.

The Bleatarn area of Warcop parish is supplied from a spring near Bleatarn village. There are settling tanks and screens. The quality of the water is indifferent bacteriologically. This supply had to be augmented from the Regional System during the drought. During 1950 your Council acquired the water rights and purchased land to obtain better control against contamination.

Hilton Supply.

A spring on the fells near Scordale supplies the Hilton areas of Murton parish. There are settling tanks and screens. The quality of the water is indifferent.

Murton Supply.

This source is from a spring on the fells near Murton. There are settling tanks and screens. The bacteriological quality of the water is poor.

Dufton Supply.

The water comes from a spring near Keisley. There are settling tanks and screens. The water is of fair quality.

Longmarton Supply.

This is a mixed supply from two sources, one spring at Dufton Pike and one spring at Close Houses. There are screens and settling tanks. The parishes of Longmarton and Crackenthorpe are supplied. The quality of the water is fair. Shortage was experienced in the drought, and the supply had to be augmented from Great Rundal Beck.

Kirkby Thore Supply.

Springs in Marble Scar in the parish of Milburn form the source of the supply to Kirkby Thore and Milburn. There are settling tanks and screens. The quality of the water is fair. The supply had to be augmented from a private source at Howgill Castle Farm during the drought.

Temple Sowerby Supply.

The supply comes from a spring at Newbiggin Mill, near Milburn. The source is bad as it is liable to flooding with polluted beck water. Your Council's septic tank for Milburn village drains into this beck and there is a danger that the public water supply may be contaminated with sewage. I recommend that this water supply should be chemically sterilised as a matter of urgency.

Newbiggin-on-Lune Supply.

Upland surface water from a beck at Swarth Ghyll forms the supply to the Newbiggin area of the parish of Ravenstonedale. There are settling tanks and screens. The quality of the water is fair.

General Quality.

The poor and indifferent bacteriological results are in the main due to the upland gathering grounds being grazed by stock with the consequent manurial contamination of the water after rainfall. The bacterial counts fluctuate widely according to climatic conditions, and as most of your public waters are untreated the contamination tends to be a nuisance in laboratory control rather than any particular danger to the consumers. Certain sources, however, require close investigation and supervision against possible human pollution.

The Minister of Health requires me to state the number of houses and population in each of your 52 parishes with water laid on and with water available from standpipes.

PUBLIC WATER DISTRIBUTION.

Parish	No. of Houses in Parish	No of Houses with Water laid on	No. of Houses supplied from Stand Taps	No. of Houses otherwise supplied
Asby	105	88	—	17
Askham	120	118	—	2
Bampton	133	104	—	29
Barton	79	59	—	20
Bolton	84	78	2	4
Brough	219	203	4	12
Brough Sowerby	29	25	—	4
Brougham	75	69	—	6
Cliburn...	57	57	—	—
Clifton	91	89	—	2
Colby	28	28	—	—
Crackenthorpe...	26	26	—	—
Crosby Garrett	51	46	—	5
Crosby Ravensworth ...	163	130	—	33
Dufton	86	66	—	20
Hartley	46	38	5	3
Hillbeck	9	9	—	—
Hoff	53	48	—	5
Kaber	38	24	—	14
Kings Meaburn	40	40	—	—
Kirkby Stephen	539	534	4	1
Kirkby Thore	145	133	12	—
Long Marton	190	186	—	4
Lowther	111	101	—	10
Mallerstang	33	—	—	33
Martindale	40	—	—	40
Milburn	57	49	—	8
Morland	82	77	—	5
Murton	105	82	8	15
Musgrave	51	45	—	6
Nateby	40	35	5	—
Newbiggin	36	35	—	1
Newby	49	49	—	—
Ormside	38	25	—	13
Orton	225	164	3	58
Ravenstonedale	222	86*	12	124
Shap	357	330	18	9
Shap Rural	62	34	—	28
Sleagill	29	29	—	—
Sockbridge & Tirril	76	76	—	—
Soulby	60	48	—	12
Stainmore	111	1†	—	110
Great Strickland	64	57	—	7
Little Strickland	22	20	—	2
Tebay	270	229	—	41
Temple Sowerby	104	101	2	1
Thrimby	13	10	—	3
Waitby...	18	12	—	6
Warcop	149	132	7	10
Wharton	10	2	—	8
Winton...	65	61	2	2
Yanwath & Eamont Bridge...	77	74	—	3
TOTALS ...	4,982	4,162	84	736

* This does not include the houses supplied from the Ravenstonedale Private Supply.

† This does not include the houses supplied from the Barras Private Scheme.

Proposed Future Water Schemes.

Regional Improvement Scheme.

Since terms are agreed for the acquisition of more water from Mardale it will be possible to extend the regional supply to further areas in the eastern part of your district.

Your consulting engineers have recommended extension of the filters, the laying of mains from Swindale through Shap, Orton and Newbiggin-on-Lune to Kirkby Stephen, to form a comprehensive scheme for the southern portion of your District.

A later development envisages the laying of another main from Shap through Appleby and Brough to form with the southern branch a complete ring main which would serve almost the whole of your area. It seems unlikely that the Scheme will go forward for some time on account of the present economic difficulties.

Outhgill and Shoregill.

A scheme to supply these villages from springs at Well Gill was considered and approved by the Ministry of Health during 1949, a contract has been let during 1950, and it is expected that work will commence in the spring of 1951.

Ravenstonedale.

As an alternative to the proposed scheme your Council are negotiating for the purchase of the existing private supply scheme which serves Ravenstonedale and Coldbeck villages. Repairs and additions would be necessary.

Wharton.

A scheme to supply Wharton Parish was prepared in 1945 but was held up by doubts as to the water available from the regional supply at Wiseber Hill reservoir. Arrangements have now been made to improve the quantity by bye-passing the break pressure tank and providing a safety release through Little Ashby reservoir, so that Wharton can be supplied satisfactorily. The scheme was approved by the Minister of Health during 1950 and it is hoped that the work will start during 1951.

Brough.

The supply has become so short in dry weather since the new houses were built in Brough and since milk production has increased that it is proposed to augment the service by taking in a new spring. Plans were in course of preparation during the year.

Kirkby Stephen.

Improvements are planned to improve the Kirkby Stephen supply by the much needed addition of settling tanks and filters to make this turbid water more presentable for the inhabitants and many visitors.

SEWERAGE.

General Position.

Public Health Act, 1936, *Section* 14.

There is need for improved sewerage in your District. Your progress in the extension of the public water supplies has outstripped the disposal arrangements. Most of the villages are provided with some system of piped or culverted sewers, which may have served well in the past but which are now inadequate for present needs, and in many cases the installation of modern water closets is delayed by sewerage difficulties. Apart from Orton, which was equipped in 1940 with a full treatment plant, most of your District requires drastic overhauling and reprovision.

My report for 1947 tabulated the 28 sewage disposal works in your District. Many of these works are in poor structural condition and their efficiency is impaired by overloading or decay. The retaining wall of the percolating rotary filter bed at Kirkby Stephen has collapsed, and the Tebay works represent merely a token removal of the larger solids. Remedial action is considered below.

Prevalence of Water Closets.

The prevalence of water closets is largely governed by the availability of adequate water and sewerage. As most of your District is well watered the main deterrent is sewerage, although there has been an increased tendency recently to install septic tanks. It is estimated that less than 25 per cent. of the houses outside the larger villages are provided with water closets.

Conversion to Water Closets.

Public Health Act, 1936. *Section* 47.

There were 61 conversions to water closets during the year. Your Council have made no contributions under this Act.

Public Conveniences.

Public Health Act, 1936. *Section* 87.

Your Council provide public conveniences at Kirkby Stephen, Brough and Shap. The accommodation is generally sufficient for local requirements but it is inadequate to deal with the seasonal motor coach traffic.

These coaches present a special difficulty in Kirkby Stephen which is used as a halting point for a very large number of Tyneside-Blackpool vehicles, and the shortage is accentuated by their arrival within a short period of time. Fouling of streets, doorways and yards results.

Your Council selected a site for the construction of a large public convenience at the rear of the Catholic Church, but after a public inquiry it was not approved by the Minister of Health. Your Council then

proposed a large car park and conveniences on a site at the northern entrance to the town, but this was abandoned on account of strong opposition by the Parish Council.

Your Council then selected a site with a fair measure of local agreement at the rear of the Fountain Café, but this was not approved by the County Planning Authority. Another site at the rear of the Black Bull Hotel was not approved by the County Planning Authority.

A suggestion to apply for the diversion of the bus traffic to exclude Kirkby Stephen was hurriedly opposed by the traders of the town. Amid this welter of conflicting trade and personal interests your Council have shown remarkable patience and perseverance in trying to find the solution to separating brass from dirt. At the year end the matter was more or less shelved in despair, and it is hoped that catering establishments will help by providing better facilities.

At Pooley Bridge a similar difficulty arises to a slightly lesser extent when coach parties arrive and the Ullswater Lake Steamers disembark. Public conveniences are inadequate at both ends of the lake and indiscriminate fouling is inevitable. Your Council considered a site at Pooley Bridge but deferred the matter for a year on account of the cost.

At Tebay the plans to erect a public convenience were approved for a site opposite the Cross Keys Hotel at the entrance to the proposed housing site, but the Parish Council subsequently requested that this project should be abandoned.

An alternative site at the east end of the village, on the recreation ground at the junction of Orton Road, was recommended by the Parish Council and at the year end the proposal was being considered by the Planning Authority.

Proposed Schemes for Sewerage.

Your Council fully appreciate the magnitude of the task in raising the standard of sewerage to that of their water supplies, and they have planned to carry out the following works when the current restrictions on capital expenditure have been removed. The programme is so extensive that it will probably have to be carried out in stages :—

Brough.

The scheme for new disposal works and extension of sewers was approved by the Minister of Health in general principle, but permission to start was limited to that portion of the scheme which will supersede the present bad outfall at Waggon House, and which will allow further development of your Council's housing estate.

The unsatisfactory conditions at the other outfalls at Coltsford and Church Brough cannot be remedied until the full scheme can be installed.

It is expected that work will commence on the partial scheme during the spring or summer of 1951.

Kirkby Stephen.

The circular filter collapsed in 1948 and a scheme for the reconstruction and enlargement of the works was approved by the Minister of Health in 1950. Commencement of work is expected in 1951.

Tebay.

The scheme for the comprehensive sewering of the village and the construction of new disposal works which has been considered off and on for over 30 years reached the stage of public inquiry during 1949.

The Minister of Health approved the scheme in principle but permission to invite tenders has not yet been granted. Tebay urgently needs the scheme to abolish the large number of privy middens and the present bad outfalls.

Shap.

The engineers have completed their plans and the scheme awaits inquiry by the Minister of Health.

Long Marton.

A quarter-mile of sewer, a settling tank, filter and sludge drying beds were constructed during 1950, necessitated by the completion of the Council's housing estate.

Hackthorpe.

A settling tank, sludge drying beds and sub-irrigation drainage were constructed in 1950 at the Hackthorpe and Lowther outfall which was previously untreated.

Kings Meaburn.

A settling tank and sub-irrigation drainage, and a short sewer were constructed at the outfall which was previously untreated. This should improve the condition of the watercourse receiving the effluent.

Newbiggin-on-Lune.

An extension of the sewer was made for about 150 yards to serve houses in the upper part of the village.

Other improvements which are in abeyance include the following :—

Village.	Nature of Works.
Temple Sowerby...	... Construction of some new sewers and complete disposal works.
Asby	... Complete new sewerage system and disposal works.

Village.	Nature of Works.
Hartley	... Complete new sewerage system connected to Kirkby Stephen outfall sewer.
Soulby	... Complete new sewerage system and disposal works.
Ravenstonedale ...	... Complete new sewerage system and disposal works.
Tirril and Sockbridge	... New sewers and disposal works.
Clifton	... New sewers and disposal works.
Crosby Ravensworth Maulds Meaburn	... New sewers and disposal works.
Great Strickland	... New sewers and disposal works.
Bolton	... New sewers and disposal works.
Askham	... New sewers and disposal works.
Little Strickland	... New sewers and disposal works.
Morland	... New sewers and disposal works.

Your Council have decided to give priority to Shap, Tebay, Kirkby Stephen and Brough.

On account of difficulty in obtaining casual labour many of the settling tanks and small disposal plants in the villages do not receive sufficient attention to maintain them in proper order. A permanent mobile squad of men is needed to visit each works on a regular programme.

PUBLIC CLEANSING.

Areas of Refuse Collection.

Public Health Act, 1936. *Section* 72.

There are only three parishes in which your Council do not collect house refuse. These parishes at Stainmore, Wharton and Martindale do not contain villages of sufficient size.

In the remainder of your District the house refuse is collected either by employees of your Council or by local contractors. The collection area is limited to the villages and hamlets which can reasonably be reached by the refuse vehicle on an organised round.

The frequency of collection in the less populous areas is monthly, but in Pooley Bridge, Tirril, Sockbridge, Yanwath and Eamont Bridge in the Western Division, and in most of the Eastern Division a fortnightly service is maintained. Weekly collections are limited to Shap, Tebay, Kirkby Stephen and Brough.

The emptying of privy middens at Tebay and Shap is a serious difficulty and continuance of this service is in jeopardy.

Refuse Disposal.

Public Health Act, 1936. *Section* 76.

Controlled tipping is the aim of your Council but it is difficult to obtain sufficient covering material to keep the tips in proper condition.

In the Eastern Division disused quarry sites at Stamp Hill, Kirkby Thore, and at Gallensay Road, Soulby, are utilised. Brough refuse is now tipped on to a new site on the Musgrave Road and the old tip has been abandoned.

In the Western Division the chief tips are at a site a mile north of Shap, and at Chapel Wastes near Tebay. There are two smaller tips at Yanwath and Hackthorpe.

Salvage of Waste Materials.

Salvage Recovery Order, 1940.

The salvage of waste materials was carried out during the 1939/45 war, but on account of the withdrawal of voluntary labour and the scattered nature of the District your Council had reluctantly to discontinue the practice.

Street Cleansing.

Public Health Act, 1936. *Section* 77.

Street cleansing is carried out by the Westmorland County Council in the larger villages, and these are usually maintained in good order.

FOOD AND DRUGS.

Under the Food and Drugs Act, 1938, and the Orders and Regulations made thereunder, your Council has the duty of carrying out specific responsibilities in the registration of certain food premises, in the supervision of milk distributors and certain dairies, and in the wide field of protection of the public from foodborne diseases. The County Council are responsible for the detection of adulteration of foodstuffs and the supervision of the sale of drugs.

The Act came into force just before the commencement of the late war, and apart from the Milk and Dairies Orders and Regulations which were continued from earlier Acts, its full operation has not yet been locally achieved. The Ministries of Health and Food are sponsoring a vigorous campaign against foodborne disease and the proper implementation of the Act should give a greater measure of protection to the public. The co-operation of the catering trade and the education of all food-handlers in a high standard of hygiene will be sought under the wide powers provided by the Act.

The Ministry of Food confirmed your Council's byelaws for food-handling and these are now in operation.

Precautions against Contamination.

Food and Drugs Act, 1938. *Section* 13.

Food traders and caterers observe a fairly good standard of cleanliness on the average, but considerable work lies ahead in raising the standard of those who are now below that average. I want to see cleaner food, cleaner premises and cleaner food-handlers.

This aim is of major importance. It will involve my department carrying out your statutory responsibilities with particular diligence, and it will require the education and co-operation of all food-handlers within your Area.

I am confident that this co-operation will be forthcoming. I believe that traders are eager to set their premises in order in the interests of enterprise and competition, and that they are anxious to eliminate slip-shod methods among their staffs.

Thorough cleanliness in the kitchen is far more important than titivation in the dining-room. No food trader nor caterer should be ashamed to show his customers behind the scenes, and every customer should be confident that the food he eats is clean and has been cleanly prepared. He has a right to be protected and your Council is the guardian of that right.

Food-borne diseases, mild dysenteries, and attacks of diarrhœa and vomiting are not infrequent in our homes, and among our visitors. I am confident that higher standards will reduce these preventable diseases.

Ice Cream Trade.

Food and Drugs Act, 1938. *Section* 14.
Ice Cream (Heat Treatment, etc.) Regulations, 1947.

The following premises were registered under Section 14 of the Food and Drugs Act, 1938 :—

Manufacture by hot mix, cold mix, storage and sale	0
Manufacture by cold mix, storage and sale	3
Storage and sale only	19

A comprehensive code of standards for ice-cream factories, plant and retail units was approved by your Council and circulated to the trade. The open barrow or cart has been abolished, and the enforcement of the Ice Cream (Heat Treatment, etc.) Regulations, 1947, has greatly improved the technique of manufacture.

Prepared Meats.

Food and Drugs Act, 1938. *Section* 14.

The number of premises on the Register under Section 14 of the Food and Drugs Act, 1938, used for the preparation of sausages, potted meat, preserved meat, pressed meat, and pickled foods, was 22. Informal Notices have been issued regarding certain alterations and improvements.

Milk.

I think the day is not far distant when our District will be declared free from bovine tuberculosis and the only milk allowed to be sold will be tuberculin tested milk from attested herds or heat treated milk. Very rapid progress is being made towards that goal, and we should not be distracted by side issues.

Registration of Milk Distributors and Dairies which are not Dairy Farms.

Milk and Dairies Regulations, 1949.

Total Number of Registered Distributors	6
Total Number of Registered Dairies	2

Cleanliness of Milk.

Food and Drugs Act, 1938. *Section* 68.

Twenty-six samples of milk were taken during 1950 for laboratory examination. Five were unsatisfactory.

Pathogenic Organisms in Milk.

Food and Drugs Act, 1938. *Section* 68.

One sample was examined biologically in guinea pigs for the presence of tuberculosis organisms and was negative. Three were examined for dysentery organisms and were free.

The finding of tubercle bacilli in milk is difficult, and one must bear in mind the human biological tests on your children with their tragic record of new cases and deaths in the past years from non-respiratory tuberculosis. The growth of the Attested Herds Scheme and Tuberculin Tested milk production will gradually reduce this toll of human suffering, but more intensive sampling of ungraded milks will be required.

No instances of other disease producing organisms in milk were found. We know that *Brucella abortus,* the organism which causes contagious abortion in cattle and undulant fever in man, can be isolated from a good proportion of bulked milk supplies, and it is probable that mild infections constantly occur. No serious cases have been encountered and the veterinary profession is taking steps to inoculate cattle against the disease.

It was not necessary to stop any milk supply or restrict the activities of milk-handlers under the Milk and Dairies Regulations on account of infectious disease.

Designated Milks.

Milk (Special Designations) Regulations.

Your District Council is responsible for the granting of dealers' and supplementary annual licences for the sale of designated milks. One dealer's licence was granted during the year.

Slaughterhouses.

Food and Drugs Act, 1938. *Sections* 57-61.

Since the establishment of the Ministry of Food Abattoir at Kirkby Stephen in January, 1940, the various private slaughterhouses in your District have been used solely for the temporary storage of meat pending distribution to the consumers. All licences have lapsed. There are no knackers' yards.

Meat is now distributed from either the Penrith or the Kirkby Stephen Abattoirs under the centralised slaughtering scheme. The efficiency and convenience of meat inspection has made a dramatic improvement.

Condemnation of Meat.

Food and Drugs Act, 1938. *Sections* 10-12.

The whole of the meat inspection at the Kirkby Stephen Abattoir is carried out by your Sanitary Inspectors, and a 100 per cent. inspection service has been maintained throughout the year.

The figures of 2,266 animals slaughtered and meat condemned during the year are as follows :—

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	225	290	56	1679	16
Number inspected	225	290	56	1679	16
ALL DISEASES EXCEPT TUBERCULOSIS—					
Whole Carcases condemned	—	29	25	30	—
Carcases of which some part or organ was condemned ...	113	174	9	152	5
Percentage of number inspected affected with Disease other than Tuberculosis ...	50·22	70·00	60·71	10·83	31·25
TUBERCULOSIS ONLY—					
Whole Carcases condemned	3	16	—	—	1
Carcases of which some part or organ was condemned ...	37	60	—	—	1
Percentage of the number inspected affected with Tuberculosis	17·77	26·20	—	—	12·5

In retail shops 74 lbs. of beef were condemned due to bone taint.

Condemnation of Other Foods.

The following other foodstuffs were condemned during the year :—

Canned Corned Beef	102 lbs.
Bacon	57 lbs.
Cheese	4 lbs.
Canned Fish	6 lbs.
Canned Luncheon Meat	2 lbs.
Canned Peas and Soups	2½ lbs.
Canned Apples	3 lbs.

GENERAL SANITARY INSPECTION.

Your Council employs one Chief Sanitary Inspector and two Additional Sanitary Inspectors. The salary is apportioned between the sanitary inspection duties and other duties in a proportion approved by the Minister of Health. You receive through the County Council a grant of one-half of that apportionment of the salary allocated to sanitary inspection, and this should therefore be the basis upon which time is devoted to the various duties.

The Chief Sanitary Inspector is located at the Council Offices in Kirkby Stephen, and the senior of the two Additional Sanitary Inspectors is located at Shap. The third Inspector assists where he is required from time to time.

The Chief Sanitary Inspector has the assistance of one female clerk and one male clerk and, in addition to being responsible for the whole Rural District, he has personal charge of the Eastern Division which represents that portion of your District which was East Westmorland before the boundary alterations in 1935.

The Second Sanitary Inspector has an office in Shap and has the assistance of one male clerk. He is responsible to the Chief Sanitary Inspector for carrying out the Council's duties in the Western Division which represents the old Shap Urban District and Shap Rural District and the West Ward.

I recommend once again the centralisation of administration within your Area. The divided control is a bad relic of the fusion of the Districts which took place in 1935 and if the unification is to be made an effective unit of Local Government it must be a union in spirit and body as well as in name. Old rivalries and local prejudices must be sunk in order that efficiency as well as economy may be achieved.

The heavy imposition of the delegated functions under the Town and Country Planning Act, 1947, was increased during 1949. This additional

burden together with the duties of water engineering seriously embarrasses my staff. I am keeping this matter under close review as I am not at all satisfied with the position which prejudices sanitary inspection and the health of the staff.

The war years caused the accumulation of considerable arrears of work in many aspects of your Council's sanitary functions, and it will take a fair time to make good this leeway. I support most strongly the policy of my Chief Sanitary Inspector to concentrate upon the more essential functions in a thorough manner, each in turn, and therefore it will be seen from this report that some duties are not at present being carried out to the extent which is desired.

I deprecate mere token performance of your Council's statutory responsibilities, my department has set itself a high standard of efficiency and I am convinced that we are working on the right lines to raise your Council in the ranks of progressive authorities. Your existence depends upon efficiency in these times of increasing centralisation of government.

Offensive Trades.

Public Health Act, 1936. *Section* 107.

There are no offensive trades in the District.

Factories.

Factories Act, 1937.

There are 69 factories in your District, six are non-mechanical factories and 63 are provided with power.

Shops Act, 1912-1936.

Eighteen visits were made under the Shops Acts for the supervision of sanitary accommodation, washing facilities, and the maintenance of suitable temperature. These duties are not adequately covered at present due to the prior claims of other work, but it is hoped to increase the supervision. Informal Notices were served whenever any contraventions were observed.

Common Lodging Houses.

Public Health Act, 1936. *Part IX.*

There are no registered common lodging houses in the area.

Rent Restriction Acts.

No certificates under Section 12 Rent and Mortgages Interest Restrictions (Amendment) Act, 1933, were issued during the year. No contraventions of Section 4 of the Housing Act, 1936, regarding rent book entries were encountered.

Inspections.

Premises	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities ...	6	6	—	—
Factories not included in (i) in which Section 7 is enforced by the Local Authority	63	13	—	—
Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	—	—	—	—
TOTAL	69	19	—	—

Cases in which Defects were found.

Particulars	Number of cases in which Defects were found	
	Found	Remedied
Want of cleanliness (S.1)	—	—
Overcrowding (S.2)	—	—
Unreasonable temperature (S.3)	—	—
Inadequate ventilation (S.4)	—	—
Ineffective drainage of floors (S.6)	—	—
Sanitary Conveniences (S.7) (*a*) Insufficient	—	—
(*b*) Unsuitable or defective	1	1
(*c*) Not separate for sexes	—	—
Other offences	—	—
TOTAL	1	1

Smoke Abatement.

Public Health Act, 1936. *Sections* 101-106.

No action was required.

Laboratory Service.

Public Health Act, 1936. *Section* 196.

Satisfactory laboratory facilities were available at Kendal and Carlisle for all public health purposes. During 1947 a new scheme was inaugurated by the Public Health Laboratory Service for the performance of all laboratory examinations of a preventive and epidemiological nature, free of charge to the Local Authority and the patient. This should do much to encourage the freer use of modern diagnostic methods by general practitioners and your Health Department.

National Assistance Act, 1948.

Section 47.

It was not necessary during the year to deal with any cases requiring removal. Several individuals were visited for consideration.

Byelaws.

Byelaws on public health matters are in force with regard to :—

New streets.
New buildings.
Tent, vans and sheds.
Prevention of waste, misuse and contamination of water.
Food handling.

New Legislation.

Prevention of damage by Pests Act, 1949, became operative on 1st April, 1950.

Food handling byelaws became operative on 11th September, 1950.

Shops Act, 1950, became operative on 1st October, 1950.

APPENDIX 'A' LABORATORY EXAMINATION OF PUBLIC WATER SUPPLIES

Nature of Test	Standards Max.	Barton	Blea Tarn	Bleawater Raw	Bleawater Treated	Brough
Pr. Coli count 37° ...	3–10	0	0	0	0	25
Faecal coli/strep ...	0				0	+
Character	—	Clear	Clear	Clear	Clear	Clear
Reaction *pH*	—	6·6	7·6	8·0	8·2	7·4
Free and Saline Ammonia	·001	·002	·002	·004	·002	·002
Albuminoid Ammonia ...	·008	·005	·008	·005	·006	·0136
Total Solids	—	8·1	20·1	3·6	5·8	20
Hardness { Perm. ...	—	3·2	3·4	1·4	2·4	4·5
Hardness { Temp. ...	—	1·3	6·0	0·0	·4	8·4
Hardness { Total ...	30	4·5	9·4	1·4	2·8	12·9
Chlorides...	3	0·65	1·35	0·7	·6	0·8
Nitrates	·1	—	—	—	—	0
Nitrites	—	—	—	—	—	0
0·2 Absorbed	·1	·024	·04	·028	·028	0·162
Poisonous Metals ...	0	0	—	0	0	0
Rainfall 24 hrs.	—	—	Nil	Slight	Medium	Light
Date Sampled	—	30/11/50	23/1/50	20/2/50	16/1/50	10/1/50
Laboratory	—	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Nature of Test	Dufton	Hilton	Kaber	Kirkby Stephen Raw	Kirkby Stephen Treated	Kirkby Thore ex. Marble Scar
Pr. Coli count 37° ...	0	8	0	0	0	
Faecal coli/strep ...	0	+	0			
Character	Clear	Clear	Clear	Subject to discoloration	Slightly turbid	Clear
Reaction *pH*	7·4	6·8	7·6	7·6	7·6	7·2
Free and Saline Ammonia	·001	·008	·004	·0029	·003	·004
Albuminoid Ammonia ...	·006	·003	·012	·0062	·01	·008
Total Solids	13·4	10·6	18·0	23	15·2	29·2
Hardness { Perm. ...	3·4	5·4	4·4	2·6	4·1	8·9
Hardness { Temp. ...	3·5	0·5	6·4	13·6	4·5	3·0
Hardness { Total ...	6·9	5·9	10·8	16·2	8·6	11·9
Chlorides...	1·1	0·8	0·95	1·0	0·75	1·4
Nitrates	0	—	—	·054	—	—
Nitrites	0	—	—	0	—	—
0·2 Absorbed	·028	·002	·096	·09	·308	.006
Poisonous Metals ...	Zinc 0.04	—	0	0	0	0
Rainfall 24 hrs.	Nil	Medium	Light	Slight	Medium	Medium
Date Sampled	13/3/50	6/2/50	10/1/50	9/10/47	10/1/50	20/3/50
Laboratory	Carlisle	Carlisle	Carlisle	Darlington	Carlisle	Carlisle

Chemical analysis results are expressed in parts per 100,000.

APPENDIX 'A' LABORATORY EXAMINATION OF PUBLIC WATER SUPPLIES—*continued*

Nature of Test	Kirkby Thore ex. Newbiggin	Long Marton	Murton	Newbiggin-on-Lune	Ormside
Pr. Coli count 37° ...	0	0	0	3	0
Faecal coli/strep ...				+	
Character	Clear	Clear	Clear	Clear	Clear
Reaction *pH*	6·8	7·0	6·8	7·2	7·6
Free and Saline Ammonia	·002	·001	0	·003	·002
Albuminoid Ammonia ...	·007	·004	·003	·006	·005
Total Solids	15·5	10·0	3·6	10·2	5·0
Hardness Perm. ...	6·0	2·1	1·2	2·9	3·5
Hardness Temp. ...	0·4	0·3	0	0	1·5
Hardness Total ...	6·4	2·4	1·2	2·9	5·0
Chlorides...	1·05	0·8	0·85	0·65	0·85
Nitrates	—	—	—	—	—
Nitrites	—	—	—	—	—
0·2 Absorbed	·012	·014	.072	·034	·02
Poisonous Metals ...	0	Zinc ·04	Zinc ·04	0	0
Rainfall 24 hrs.	Medium	Slight	Slight	Nil	Nil
Date Sampled	20/3/50	20/2/50	20/2/50	13/3/50	23/1/50
Laboratory	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Nature of Test	Orton	Shap	Tebay	Warcop	Wickersgill
Pr. Coli count 37° ...	0	180	0	+	5
Faecal coli/strep ...		+		+	+
Character	Clear	Clear	Clear	Clear	Clear
Reaction *pH*	7·2	7·6	7·2	7·0	8·4
Free and Saline Ammonia	·002	·003	·002	·003	·006
Albuminoid Ammonia ...	·006	·19	·004	·006	·01
Total Solids	5·3	13·2	4·6	16·8	4·6
Hardness Perm. ...	2·4	5·0	2·2	3·9	2·7
Hardness Temp. ...	0·2	2·7	0·2	5·1	0·2
Hardness Total ...	2·6	7·7	2·4	9·0	2·9
Chlorides...	0·95	0·9	0·75	0·85	0·85
Nitrates	0	—	0	·00	—
Nitrites	0	—	0	—	—
0·2 Absorbed	·54	·218	·018	·006	·07
Poisonous Metals ...	0	0	0	0	Zinc ·04
Rainfall 24 hrs.	Nil	—	Nil	Medium	—
Date Sampled	6/3/50	21/9/50	6/3/50	6/2/50	27/3/50
Laboratory	Carlisle	Carlisle	Carlisle	Carlisle	Carlisle

Chemical Analysis results are expressed in parts per 100,000